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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,168

03/12/2004

Michael Spiegel

LDP-8080 CIP

1047

7590

09/01/2006

Michael Spiegel
199 Palm Avenue
Miami, FL 33139

EXAMINER

HOPKINS, CHRISTINE D

ART UNIT

PAPER NUMBER

3735

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,168

Applicant(s)

SPIEGEL, MICHAEL

Examiner

Christine D. Hopkins

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/23/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 2 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The positive recitation of the shape of a magnetic field wave is not statutory subject matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 8 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Canedo (U.S. Pub. No. 2003/0171640). Canedo discloses treatment of lesions and infections via locally applied electromagnetic fields. With reference to claims 1-3 and 14, Canedo teaches a coil for inducing an electric field exceeding 10 mv/cm when the coil **119** is distanced around 5 cm from the tissue as evident in Fig. 6. Further, Fig. 4 displays an asymmetric, saw-tooth shaped magnetic field with the duration of the growth phase being at least ten times that of the decay phase. In view of claims 4 and 8, Canedo teaches a control circuitry comprising two subcircuits **205** and **206**, **205** controlling a positive pulse, and **206** controlling a negative pulse and IGBT switches capable of switching between the two subcircuits (col. 47, lines 42-54).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canedo (U.S. Pub. No. 2003/0171640) in view of Tsyb et al. (U.S. Patent No. 5,314,400) and further in view of Kurtz (U.S. Patent No. 5,244,922). Canedo discloses the invention as claimed, see rejection supra; however Canedo does not disclose a time constant (λ) of the second subcircuit being no less than λ of the first subcircuit, or a

second subcircuit with a λ being ten times greater than that of the first subcircuit. Tsyb et al. (hereinafter Tysb) discloses a magnetotherapy device for treating acute pain syndromes. Kurtz discloses an electromagnetic environment that produces beneficial effects in biological tissue. With reference to claims 5-7, the device of Tsyb incorporates a controlled switching element 5 (refer to Fig. 2) connected to a unit 6 for controlling the slope of the leading edge, or growth phase of the magnetic pulses. Kurtz teaches that the rise and fall times, or growth and decay times (these times each being a result of inductance divided by resistance), may be controlled by the inductance of the coil. Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to have modified the subcircuits of Canedo to incorporate the teachings of Tsyb in view of Kurtz to control the slope of the growth and decay phases of the magnetic pulse. It is further noted in view of the teachings that the resistance and inductance of each subcircuit can be varied in such a manner as to provide a time constant that may be ten times greater in one circuit than the other, or one subcircuit having a time constant equal to one.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Canedo (U.S. Pub. No. 2003/0171640) in view of Manni (U.S. Patent No. 2,939,976). Canedo discloses the invention as claimed, see rejection supra; however Canedo does not disclose a coil configured to receive a current exceeding 2000 volts. Manni discloses high voltage coils in the range of 1500 V to 2500 V (col. 4, lines 59-62). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to

employ the high voltage coil of Manni to the invention of Canedo for accommodating large voltages necessary to reverse the electric field quickly and efficiently.

9. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canedo (U.S. Pub. No. 2003/0171640) in view of Litovitz et al. (U.S. Patent No. 5,544,665). Canedo discloses the invention as claimed, see rejection supra; however Canedo does not disclose a coil with a duty cycle of at least 10 percent or at least 80 percent. Letovitz et al. (hereinafter Letovitz) teach an electromagnetic field for imparting beneficial effects to a living system that may otherwise be subjected to an ambient field deemed detrimental to the living system. With respect to claims 10 and 11, Litovitz teaches a coil generating a duty cycle between 10 percent and 90 percent of a field imposed on a living system (col. 12, lines 29-36). Therefore at the time of the invention it would have been obvious for one of ordinary skill in the art to have incorporated the duty cycle as taught by Litovitz to the invention of Canedo in order to retain an effective therapeutic field.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canedo (U.S. Pub. No. 2003/0171640) in view of Day et al. (U.S. Patent No. 7,088,210). Canedo discloses the invention as claimed, see rejection supra; however Canedo does not disclose a coil that is liquid cooled. Day et al. (hereinafter Day) teach an apparatus for cooling a magnet. With respect to claims 12 and 13, Day discloses a cylindrical coil **34** (see Fig. 5) enclosed within an electromagnet **10** and inner housing **14** whereby a fluid may enter to cool the coil (col. 6, lines 65-67 and col. 7, lines 1-11). Therefore, at the time of the invention it would have been obvious to one of ordinary skill


in the art to have adopted the cooling system of Day to the coil of Canedo in an effort to cool the coil which receives a high voltage load.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine D. Hopkins whose telephone number is (571) 272-9058. The examiner can normally be reached on Monday-Friday, 7 a.m.-3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Christine D Hopkins
Examiner
Art Unit 3735


Charles A Marmor, II
SPE, Art Unit 3735